Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (withdrawn): A turbulence-free ventilated workstation comprising:

a) a work chamber having an access opening into the work chamber, the access opening having an upper edge;

b) a horizontal air deflector plate adjacent the upper edge of the access opening to divert a portion of air entering the access opening upwardly within the chamber, whereby said diverted air eliminates an airflow eddy current.

2. (withdrawn): The ventilated workstation of claim 1, wherein said air deflector is an inverted airfoil that is positioned horizontally and extends rearwardly at an upward angle of approximately forty-five degrees from horizontal.

3. (withdrawn): The ventilated workstation of claim 1, wherein said air deflector is a box shaped air deflector extending upwardly and rearwardly.

4. (withdrawn): The ventilated workstation of claim 1, wherein said air deflector plate has a first curve extending upwardly and rearwardly extending at an angle of approximately forty-five degrees above horizontal to join a second curve extending rearwardly and downwardly back towards horizontal.

5. (withdrawn): The ventilated workstation of claim 4, wherein said plate further includes slotted openings spaced at intervals of approximately one-third and two-thirds the length of the plate.

6. (withdrawn): The ventilated workstation of claim 1, wherein said air deflector is an extended box shaped baffle having a lower section that extends upwardly and rearwardly inside said work chamber at an angle of approximately forty-five degrees and a horizontal section that is positioned near the top of said workstation.

7. (withdrawn): The extended box shaped baffle of claim 6, further including slotted openings spaced at intervals of approximately one-third and two-thirds the length of the baffle.

8. (withdrawn): The ventilated workstation of claim 1, further including a sash door for adjusting the size of said access opening.

Claims 9-12 (canceled)

13. (currently amended): A method of designing a turbulence-free laboratory safety enclosure to eliminate eddy currents, said safety enclosure including a work chamber having an access opening with an upper edge and at least one air deflector positioned along and spaced below the upper edge of the access opening, said method comprising the steps of:

a) defining a computational model that numerically represents the structure of ~~a~~ said laboratory safety enclosure including a computational model that numerically represents the structure of ~~an~~ said air deflector used to reduce ~~turbulent air flow~~ eddy currents within ~~the~~ said laboratory safety enclosure while the enclosure interior is at a negative air pressure relative to external air pressure, thereby urging external air to flow into the enclosure interior, said computational models being inputs into computational resources usable to solve a set of computational fluid dynamics equations;

b) solving said set of computational fluid dynamics equations to determine an approximation of fluid dynamics within ~~the~~ said laboratory safety enclosure;

c) displaying a representation of said approximation of fluid dynamics within ~~the~~ said laboratory safety enclosure; and

d) adjusting said computational model that numerically represents the structure of ~~the~~ said air deflector to further reduce turbulence represented by the display of said fluid dynamics approximation.

14. (original): The method of claim 13, wherein said set of computational fluid dynamics equations are derived by applying the principles of conservation of mass, momentum and energy to a control volume of fluid.

15. (original): The method of claim 13, wherein said computational models is automatically generated by software from computer-aided-drafting drawings.

16. (original): The method of claim 13, wherein said adjusting said computational model includes editing computer-aided-drafting drawings used to generate said computational models.

17. (currently amended): A method of designing a turbulence-free laboratory safety enclosure to eliminate eddy currents, said safety enclosure including a work chamber having an access opening with an upper edge and at least one air deflector positioned along and spaced below the upper edge of the access opening, said method comprising the steps of:

a) defining a computational model that numerically represents the structure of ~~a~~ said laboratory safety enclosure including a computational model that numerically represents the structure of ~~an~~ said air deflector used to reduce ~~turbulent air flow~~ eddy currents within ~~the~~ said laboratory safety enclosure while the enclosure interior is at a negative air pressure relative to external air pressure, thereby urging external air to flow into the enclosure interior, said computational models being inputs into computational resources usable to solve a set of computational fluid dynamics equations;

b) solving said set of computational fluid dynamics equations to determine an approximation of fluid dynamics within ~~the~~ said laboratory safety enclosure;

c) displaying a representation of said approximation of fluid dynamics within ~~the~~ said laboratory safety enclosure;

d) adjusting said computational model that numerically represents the structure of ~~the~~ said air deflector to further reduce turbulence represented by the display of said fluid dynamics approximation; and

e) repeating steps b) through d) until a desired reduction in ~~turbulence~~ eddy currents is displayed.

18. (original): The method of claim 17, wherein said set of computational fluid dynamics equations are Navier-Stokes equations.

19. (original): The method of claim 17, wherein said computational model represents an air deflector.

20. (original): The method of claim 17, wherein said computational model represents a fume hood enclosure.